

April 2001 Nuclear Materials Subgroup Highlights

The Hanford STCG Nuclear Materials (NM) Subgroup met at 9 a.m. on April 11th in the EESB Stampede Room.

Allison Wright led a discussion on comments that the NM Subgroup has on the report entitled *"Hanford Site Cleanup Challenges and Opportunities for Science and Technology – A Strategic Assessment"* dated February 2001. One of the questions raised was how this assessment fits in with what we are already doing at Hanford and how can we use it to help us. Jim Sloughter stated that this report is a snapshot of where we are now in terms of challenges and opportunities for S&T. Bruce Makenas stated that there was only one page dealing with SNF in the entire document. Phil Loscoe said that the SNF Program tried not to develop new technologies but to use or modify existing technologies. There is still a question of what to do with the stored sludge. The path forward has not been decided yet. Until then the sludge will remain in storage. Another issue is how long to keep the SNF in storage. No one knows where it will eventually end up.

Allison said it looked like the NM needs and issues got rolled up into the RH Handling Opportunity. Why not give Gerald Boyd a list of Hanford's top needs rather than this lengthy public relations report? The opportunities could also be written to line up with the Focus Areas and STCG Subgroups. Bruce Makenas stated that this is a very general document that doesn't tell anyone what we need or want. It is not obvious what happened to our needs. The question was raised as to how the next phase of the project, developing roadmaps, would help us in the future. Jim said that the roadmaps would integrate the needs and solutions to meet them with the project schedules. Allison said this next step should be more clearly defined in the document. Allison will work with Phil to finalize a response from the NM Subgroup. The following comments were written on the board and agreed upon by the Subgroup:

- The document is too long for the intended audience, Gerald Boyd;
- The report is very general in nature and should have more specifics added;
- A prioritized list of Hanford's top S&T needs would be better;
- Where in this report are the NM needs that the subgroup developed?
- Very little mention of the SNF challenge at Hanford;
- The Nuclear Material challenge was folded into the RH Waste Retrieval and Disposition opportunity and we believe it should be separate;
- The opportunities could be lined up to match the Focus Areas and the STCG Subgroups.

The NM Subgroup needs are to be input to the DOE Integrated Planning, Accountability, and Budgeting System (IPABS) computer system soon. Mark Gibson and Bruce Makenas are working on this now. Jim will check on the new schedule for when this needs to be completed. We also need to get a final response to our needs from the NMFA. During their last visit here the NMFA reviewed the needs but have not officially responded to them. Allison stated that the NMFA RFP is to be out by the end of the week. There will be one month to respond with proposals and then another month of reviews of the proposals

that are received. Dave Robertson agreed to distribute the RFP to select individuals on the Subgroup.

The NMFA Mid-Year Review was held on March 1-2 in Tucson, Arizona. The day before the review, February 28, the NMFA End-User Steering Committee met and Dave Langstaff from Hanford attended. The goal of the end user steering committee is to provide performance feedback from the DOE Sites to the NMFA. There was no action taken to develop a charter for the group at this meeting. Bill attended the review and found the meeting useful. A video of the hotbox project at PFP was shown and the project discussed at the review. Savannah River (SR) and Los Alamos are interested in the hot box. Jeff Walker, DOE-HQ, discussed the Pu canister monitoring system being developed using RF tag technology. SR was also interested in this technology. Jeff has promised funding of \$400K this FY to continue development work. NMFA personnel will be here at the end of April to discuss the work. We should invite a SNF expert to the meeting, as the technology may be useful for them also. Dave Robertson, who is a NMFA Product Line Manager for the Long-Term Storage Product Line presented information at the review.

A PNNL Project funded by the NMFA entitled "*Mg (OH)₂ Precipitation Optimization Testing for Stabilizing PFP Pu/Nitric Acid Solutions*" will have a 94-1 panel reviewing the use of Supercritical Fluid Extraction (SFE) to aid in the effort. After the panel findings there will be an independent review board to look at the results. Hanford is working with LANL to see why SFE does not work on the Mg Hydroxide product. The idea is to resolve the moisture issue for the precipitation product. This technical assistance is being funded by the NMFA.

Nuclear Materials Subgroup Meeting Attendees – 04/11/01

Bill Bonner	PNNL	372-6263
Mark Gibson	FH	373-4869
Phil Loscoe	RL-SFO	376-7465
Bruce Makenas	FH/SNF	376-5447
Dave Robertson	PNNL	375-3793
Jim Sloughter	NHC	375-2413
Steve Weakley	PNNL	372-4275
Allison Wright	RL-MDD	373-7303